GLOBAL CAPACITY NEEDS ASSESSMENT:

KEY GAPS AND CAPACITY PRIORITIES FOR RESTORATION TO SUPPORT THE UNITED NATIONS DECADE ON ECOSYSTEM RESTORATION 2021–2030

UNITED NATIONS DECADE ON ECOSYSTEM RESTORATION 2021-2030

Food and Agriculture Organization of the United Nations

UN environment programme

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Why a global capacity needs assessment for restoration?

Large-scale restoration of degraded natural, semi-natural, production, cultural and urban ecosystems is needed to meet the objectives of the 2030 Agenda for Sustainable Development. To support and scale up efforts to address the urgent need to restore degraded ecosystems worldwide, the United Nations (UN) General Assembly proclaimed 2021–2030 as the UN Decade on Ecosystem Restoration, with the Food and Agriculture Organization of the United Nations (FAO) and the United Nations Environment Programme serving as the lead agencies. To support its implementation, an FAO-led Task Force on Best Practices was established to enhance knowledge dissemination and system-wide capacity development efforts. This task force is a growing coalition of several dozens of global leading organizations bringing together more than 100 experts from all ecosystems around the world.

The task force conducted a global capacity needs assessment through the wide dissemination of an online survey to identify the "system-wide capacities" for enabling and empowering people, strengthening organizations, networks and partnerships, and fostering the enabling environment in order to achieve the goals of the Decade and sustain its efforts beyond 2030. The results of this assessment, which collected and analysed 1 331 responses, will help define, accelerate and upscale key knowledge products and capacity development initiatives of the Decade. Furthermore, at the regional level, collective discussions will be promoted to internalize and translate findings into action plans.

OBJECTIVES OF THE ASSESSMENT

The capacity needs assessment was undertaken to:

- provide a baseline of existing capacities across people, organizations, networks, partnerships and the enabling environment;
- help identify strengths, gaps, needs and barriers to achieving and sustaining global restoration goals at scale; and
- guide the Decade's system-wide capacity development efforts by mainstreaming restoration capabilities into regional and national knowledge and learning action plans.[1]

[1] Regional discussion in Africa was initiated during a session organized by FAO, the International Union of Forest Research Organizations (IUFRO) and the Global Landscapes Forum (GLF) at the GLF Africa 2021 Digital Conference. For more information see: https://www.globallandscapesforum.org/wp-content/uploads/2021/10/Restoration-Education-%E2%80%93-A-Call-to-Collective-Action.pdf

THE PROCESS

The global online survey was developed in close alignment with the strategy of the UN Decade, and involved important efforts and particular contributions from seven member organizations of the Task Force on Best Practices: **Forestoration International, the World Resources Institute (WRI), the Global Landscapes Forum (GLF), the United Nations University Institute on Comparative Regional Integration Studies (UNU-CRIS), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the World Overview of Conservation Approaches and Technologies (WOCAT) and FAO**.[2] A timeline of the process including preparation, launch and analysis of the key survey findings is showed in Figure 1. The survey included four sections: i) general information on the respondents; ii) information about the respondents' restoration work; iii) capacity assessment with specific questions for five stakeholder categories; and iv) the capacities of organizations, networks and partnerships, as well as the supportive policies required, through open questions.

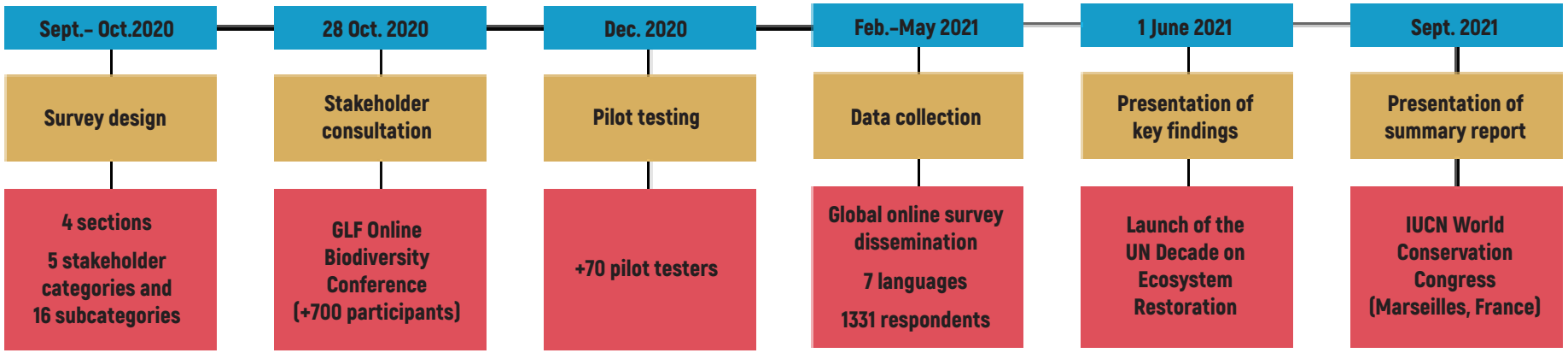

Figure 1. Timeline of the capacity needs assessment undertaken by the FAO-led Task Force on Best Practices (Sept. 2020–Sept. 2021)

[2] Detailed conceptualization and implementation of the global survey was championed by Robin Chazdon (Forestoration International), Kathleen Buckingham (WRI), Monica Kobayashi (FAO), Cora van Oosten (GLF), Kimberly Merten (GLF), Nidhi Nagabhatla (UNU-CRIS), Marie Prchalova (UNESCO), Nicole Harari (WOCAT), Salina Abraham (GLF), Nicolas Mansuy (Canadian Forest Service), Benjamin Caldwell (FAO), Justin Chisenga (FAO), Reuben Sessa (FAO), Patrick Kalas (FAO), Christophe Besacier (FAO), Vera Boerger (FAO), Faustine Zoveda (FAO) and Andrea Romero (FAO).

Profile and experience of the respondents

GENDER

Most of the respondents were men (65 percent), 33 percent were women, and 2 percent were non-binary or preferred not to say.

AGE

The assessment showed a broad representation of age groups, with a peak for the 35 to 44 year-old category (see Figure 2).

REGION

Almost three-quarters of the respondents worked in Africa, the Asia-Pacific region and Latin America. The others were evenly distributed across other world regions (see Figure 3).

COUNTRY OF ORIGIN

Most respondents were from the United States of America, China, Brazil, Kenya, India, France, Mexico, Spain, Colombia, Australia, Canada, the United Kingdom of Great Britain and Northern Ireland, and Nigeria.

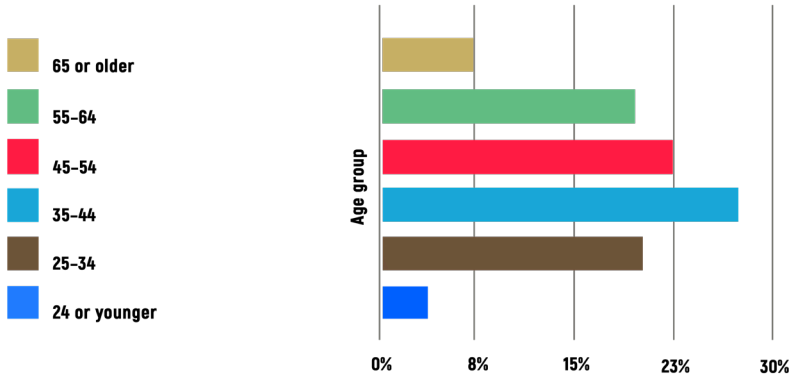

Figure 2. Distribution of respondents by age group (source: Task Force on Best Practices, 2021)

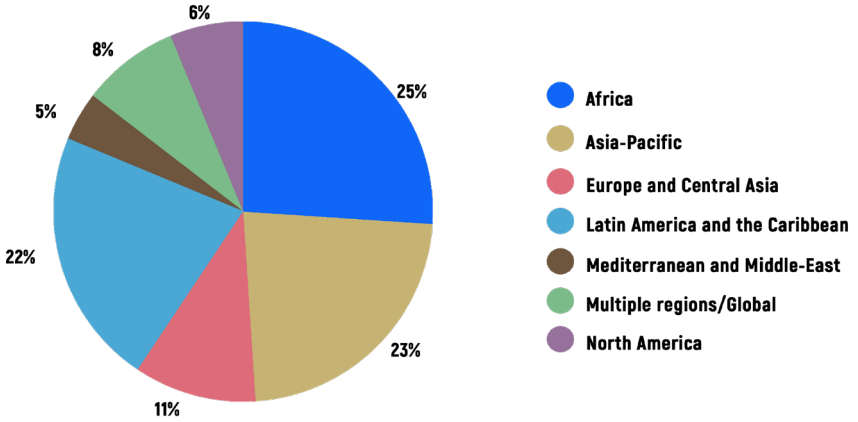

Figure 3. Regions where respondents worked (source: Task Force on Best Practices, 2021)

ECOSYSTEMS

Most respondents focused their restoration work on forest, farmland, and mountain and freshwater ecosystems. Coastal and marine ecosystems were the least represented among respondents (see Figure 4).

EXPERIENCE IN KNOWLEDGE SHARING OR CAPACITY DEVELOPMENT FOR RESTORATION

The vast majority of respondents (88 percent) had gained experience in knowledge sharing or capacity development.

PROFESSIONAL CAPACITY DEVELOPMENT OPPORTUNITIES

Half of the respondents had not benefitted from capacity development opportunities within their organizations. Respondents from Africa, Europe and Central Asia, and North America reported the lowest access to such opportunities (see Figure 5).

TIME OF INVOLVEMENT IN RESTORATION

Sixty percent of the respondents had been involved in restoration for more than six years, 32 percent had been involved for one to five years, and 8 percent for less than one year.

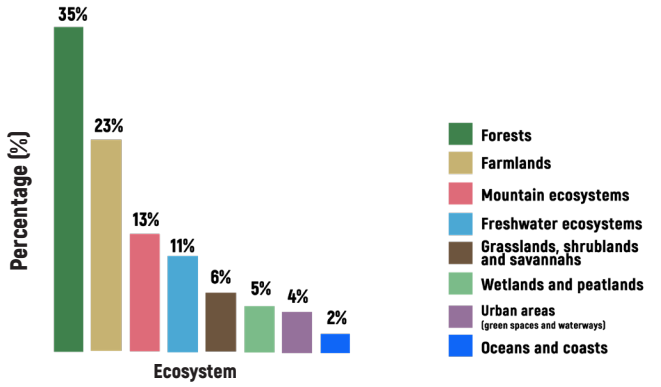

Figure 4. Ecosystem type on which respondents focused their restoration work (source: Task Force on Best Practices, 2021)

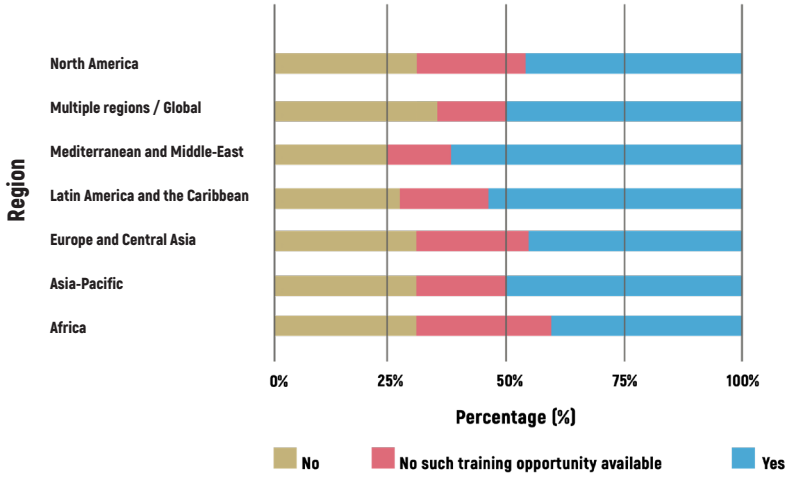

Figure 5. Access to professional capacity development opportunities by region (source: Task Force on Best Practices, 2021)

STAKEHOLDER GROUP REPRESENTATION

The vast majority of respondents worked within government, non-governmental organizations (NGOs) and other entities at national and international levels (Group I). Respondents working at the subnational and local levels in government, NGOs, and community-based organizations (CBOs) (Group II), or representing land users and interest groups (Group V), accounted for almost a quarter of stakeholders (23 percent), followed by the research and academia sector (17 percent). The private and finance sectors were the least represented, with 5 percent of respondents (see Figure 6).

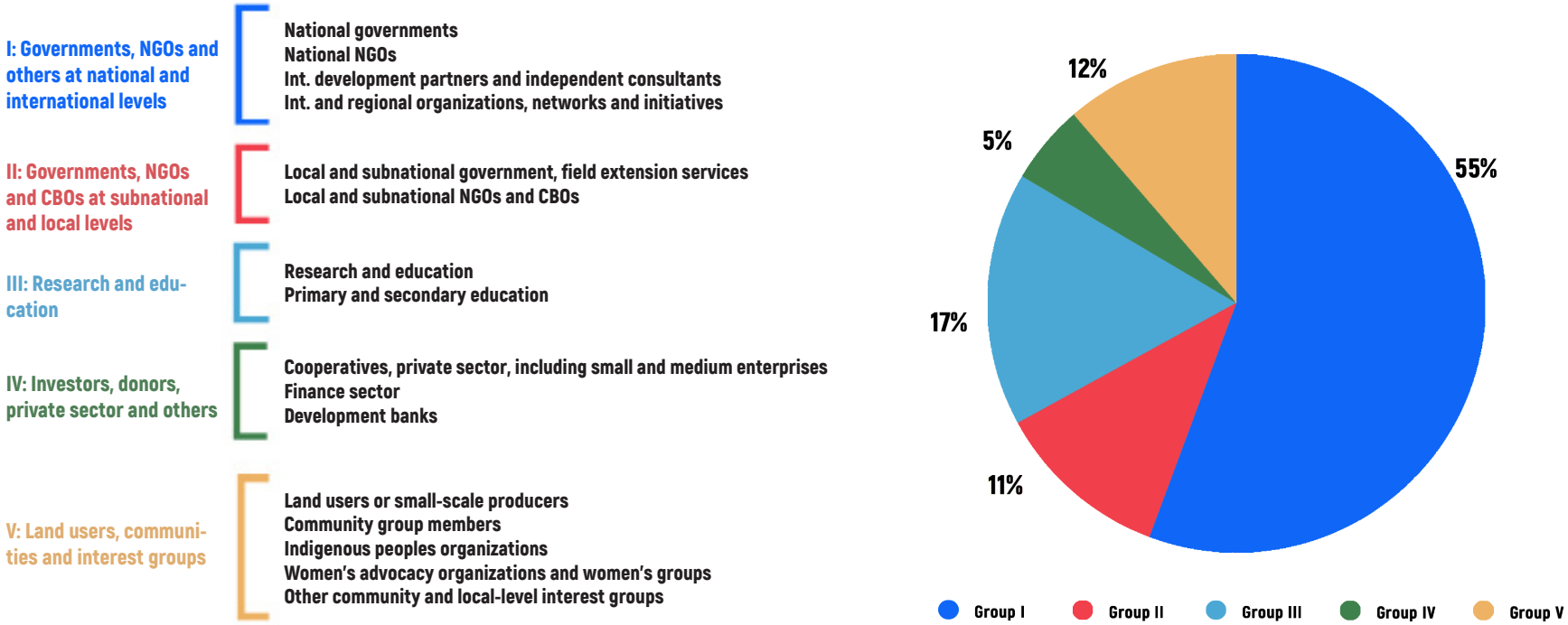
I: Governments, NGOs and others at national and international levels
National governments
National NGOs
Int. development partners and independent consultants
Int. and regional organizations, networks and initiatives
II: Governments, NGOs and CBOs at subnational and local levels
Local and subnational government, field extension services
Local and subnational NGOs and CBOs
III: Research and education
Research and education
Primary and secondary education
IV: Investors, donors, private sector and others
Cooperatives, private sector, including small and medium enterprises
Finance sector
Development banks
V: Land users, communities and interest groups
Land users or small-scale producers
Community group members
Indigenous peoples organizations
Women's advocacy organizations and women's groups
Other community and local-level interest groups
12%
5%
55%
17%
11%
Group I
Group II
Group III
Group IV
Group V

Figure 6. Stakeholder group representation including the five categories and 16 subcategories addressed in the survey (source: Task Force on Best Practices, 2021)

Gaps and strengths of stakeholder groups

The survey assessed the levels of capacities across different stakeholder groups (Figure 6) involved in restoration at all scales (local, subnational, national and international), from diverse sectors and throughout all phases of ecosystem restoration projects and programmes. Gaps (no, little or moderate capacity) and strengths (high level of capacity) were identified and are presented in order of priority in Tables 1 to 5.

GROUP I: CAPACITIES OF GOVERNMENTS, NGOS AND OTHERS AT THE INTERNATIONAL AND NATIONAL LEVELS	
GAPS	**STRENGTHS**
Mobilize finance for restoration from:	
• Non-traditional or innovative funding. • Climate financing instruments. • Development banks and international agencies. • Environmental funds. • Private sector. • National budgets and resources. • Non-governmental funding.	
Engage sectors and actors in restoration planning and implementation	
• Finance. • Mining and energy. • Marine/fisheries. • Cooperatives, small and medium enterprises (SMEs) and private sector. • Primary and secondary education. • International development partners, regional organizations, network, initiatives. • Women's organizations. • High-level policymakers. • Indigenous groups. • Land users & small-scale producers. • Local/subnational governments. • Youth organizations. • Local and subnational NGOs and CBOs. • Agricultural sector, including extension services.	• Environment. • Research and academia.
Assess and map ecosystem degradation	
• Assess the extent and scale of ecosystem degradation.	• Assess the direct and indirect drivers of ecosystem degradation.

GROUP I: CAPACITIES OF GOVERNMENTS, NGOS AND OTHERS AT THE INTERNATIONAL AND NATIONAL LEVELS	
GAPS	**STRENGTHS**
Develop a restoration plan	
• Assess the costs and benefits of interventions. • Develop a financing plan.	• Establish targets. • Identify priority/suitable areas and interventions.
Support restoration implementation	
• Promote development of supply chains, markets and value chains for restoration. • Procure quality resources (e.g. seeds, seedlings and tools), in appropriate quantities.	• Develop capacities, transfer technologies and share knowledge and good practices on all stages. • Provide technical assistance.
Monitor restoration	
• Develop monitoring and evaluation systems to track restoration progress.	
Develop national-scale policies and legal frameworks that are:	
• Providing equitable access to markets for local communities. • Strengthening traditional and formal rules and regulations governing land ownership, resource tenure and use rights. • Empowering communities to set up by-laws governing access to, and use of, land and natural resources at the community level. • Supportive of SMEs engaged in ecosystem restoration. • Providing effective incentives for local communities and stakeholders engaged in restoration activities. • Based on science or evidence, including traditional knowledge. • Respectful of the cultural, religious, spiritual, aesthetic and recreational values associated with ecosystems. • Gender responsive. • Inclusive of youth, Indigenous peoples, ethnic minorities, and poor and marginalized groups. • Respectful of the rights of Indigenous peoples and local communities with regard to their traditional knowledge, lands, water, resources and territories.	

GROUP II: CAPACITIES OF GOVERNMENTS, NGOS AND CBOS AT THE SUBNATIONAL AND LOCAL LEVELS	
GAPS	**STRENGTHS**
Engage sectors and actors in restoration planning and implementation	
• Mining and energy. • Marine/fisheries. • Finance. • High-level policymakers. • Cooperatives, SMEs and private sector. • Agricultural sector, including extension services. • International development partners, regional organizations, network, initiatives. • Local/subnational governments. • Women's organizations. • Land users and small-scale producers. • Primary and secondary education. • Indigenous groups. • Youth organizations.	• Community leaders. • Environment. • Local/subnational NGOs and CBOs.
Assess and map ecosystem degradation	
• Assess the extent and scale of ecosystem degradation.	
Establish a restoration plan	
• Develop a financing plan. • Assess the costs and benefits of interventions. • Align with national restoration plans and targets. • Identify and formulate alternatives for generating livelihoods for local communities. • Establish subnational restoration targets.	• Identify priority/suitable areas and interventions.

GROUP II: CAPACITIES OF GOVERNMENTS, NGOS AND CBOS AT THE SUBNATIONAL AND LOCAL LEVELS	
GAPS	**STRENGTHS**
Support restoration implementation	
• Develop supply chains, markets and value chains for restoration. • Develop capacities, transfer technologies, and share knowledge and good practices on all stages. • Procure quality resources (e.g. seeds, seedlings and tools), in appropriate quantities. • Engage in and facilitate multi-stakeholder platforms and networks.	
Monitor restoration	
• Establish a baseline for monitoring restoration. • Select appropriate indicators for the monitoring and evaluation of restoration. activities for specific contexts and ecosystems.	
Implement local or subnational restoration actions that are:	
• Strengthening traditional and formal rules and regulations governing land ownership, resource tenure and use rights. • Providing equitable access to markets for local communities. • Empowering communities to set up by-laws governing access to and use of land and natural resources at the community level. • Providing effective incentives for local communities and stakeholders engaged in restoration activities.	• Supportive of local communities. • Respectful of the cultural, religious, spiritual, aesthetic and recreational values associated with ecosystems. • Respectful of the rights of Indigenous peoples and local communities with regard to their traditional knowledge, resources and territories.

GROUP III: CAPACITIES OF RESEARCH AND EDUCATION	
GAPS	**STRENGTHS**
Assess costs and benefits of ecosystem degradation and restoration	
• Develop economic models that quantify expected long-term benefits of ecosystem restoration, including the supply of both public and private goods. • Quantify social costs and benefits. • Quantify biophysical costs and benefits.	
Develop decision support tools, models and guidelines for restoration	
• Develop bankable business plans and business models based on sustainable production from restored ecosystems. • Develop equitable cost- and benefit-sharing models of ecosystem restoration. • Develop predictive spatial models based on social and/or environmental data for optimization. • Engage with technology companies to develop platforms and applications for catalysing large-scale ecosystem restoration. • Develop and/or make use of existing information technology tools, digital platforms, mapping, data repositories, etc. to support evidence-based decision-making on restoration.	• Identify limiting factors and barriers to achieving ecosystem restoration at scale. • Effectively integrate science, Indigenous knowledge and traditional practices within restoration initiatives. • Engage and work jointly with decision makers and restoration implementers to develop decision support tools, models and guidelines for carrying out restoration in line with the needs identified.
Enhance capacity and support services for ecosystem restoration	
• Ensure extension services are delivered in an inclusive and gender-responsive manner. • Develop harmonized extension programmes across sectors.	• Promote approaches supportive of restoration (e.g. through assisted natural regeneration of ecosystems, agroforestry and agroecology). • Package and distribute technical information on ecosystem restoration.
Enhance communicate knowledge	
	• Identify the sources, factors and drivers of ecosystem degradation. • Document and share case studies and restoration best practices. • Investigate methods and approaches for implementing and monitoring restoration. • Identify linkages between ecosystem restoration and environmental services. • Assess how policies influence the implementation and outcomes of restoration interventions.

GROUP IV: CAPACITIES OF INVESTORS, DONORS, THE PRIVATE SECTOR AND OTHERS
GAPS *
Innovative financing solutions
• Develop innovative financing solutions to catalyse ecosystem restoration. • Facilitate access to funding support by communities, marginalized groups and grass roots groups engaged in restoration. • Establish risk-sharing mechanisms.
Manage investment risks
• Develop risk mitigation measures to secure investments in ecosystem restoration. • Understand differences in economic and financial requirements for different types of funding instruments and market players. • Assess investment readiness of restoration projects. • Assess if restoration projects meet investors' needs. • Support the development of bankable business plans and business models for ecosystem restoration projects. • Apply environmental and social impact criteria in selecting prospective investments in ecosystem restoration.
Sustainable financing for restoration
• Capacity to make long-term funding commitments. • Capacity to structure long-term funding mechanisms. • Strengthen and/or establish inclusive sustainable commodity value chains based on restoration initiatives. • Strengthen links between restoration investments and commercially viable and environmentally sustainable income-generating activities.
Partnerships
• Participate in matchmaking platforms to learn about subnational and national restoration initiatives in need of financial support. • Promote partnerships among key stakeholders/investors to boost financing of community-based restoration. • Negotiate with government and other decision makers to provide economic incentives for ecosystem restoration.

***Note: No particular strengths were identified in the survey for Group IV.**

GROUP V: CAPACITIES OF LAND/ECOSYSTEM USERS, COMMUNITIES AND INTEREST GROUPS	
GAPS	**STRENGTHS**
Mobilize finance for community-level restoration activities from:	
• Local or regional banks. • National or subnational budgets and resources. • Non-traditional or innovative funding (e.g. crowdsourcing). • Private sector. • Community-based institutions and financing mechanisms. • Research grants. • Income from restoration products or services. • Development partners, non-profit organizations and foundations.	
Implement and monitor community-based restoration activities	
• Mediate land-use conflicts among stakeholder groups. • Map geographic boundaries of interventions. • Align community-based plans with subnational and national ones.	• Manage project funds and be accountable for the expenses involved. • Ensure women have an equal voice in decision-making. • Adapt to rapid political and economic change. • Participate in the monitoring and evaluation of restoration activities. • Select appropriate interventions.
Organizational capacity development and engagement	
• Establish or strengthen local producer organizations and cooperatives involved in ecosystem restoration. • Document and archive Indigenous and traditional restoration practices and support their implementation. • Strengthen and/or establish inclusive and sustainable value chains to sustain ecosystem restoration initiatives.	• Hold community events to support, celebrate and recognize participation in restoration activities. • Cultivate and recognize local leaders and champions. • Organize restoration training programmes oriented towards different community groups.

Recommendations

The results of the survey provided critical information for achieving and supporting the ambitious global restoration goals given that:

> Capacity development often involves enhancing the knowledge and skills of individuals whose work results greatly rely on the performance of the organizations in which they work. The enabling environment influences the effectiveness of organizations. Conversely, the environment is affected by organizations and the relationships between them (FAO, 2019, p. 1).[3]

Priority actions as well as policies are needed to strategically strengthen the capabilities of individuals, organizations and networks in the following areas:

1) DEVELOPING CAPACITIES OF INDIVIDUALS AND ORGANIZATIONS ACROSS SECTORS AND SCALES

The global survey enabled the identification of key priority areas for future capacity development efforts, namely financing, stakeholder engagement, technical capacities and the development of supportive policies for restoration. These components will be critical to ensure the success and continuity of restoration endeavours over time and are described in the following list.

[3] FAO. 2019. *OED Capacity Development Evaluation Framework*. Rome. (also available at: http://www.fao.org/3/ca5668en/ca5668en.pdf)

a) **Financing**: Comprehensive efforts should be made to enhance the financial component of restoration projects, programmes and initiatives. These efforts should address limited capacities with regard to mobilizing financing instruments, benefitting all stakeholder groups. Improving the capacities of **governments, NGOs and other organizations at international and national levels** for mobilizing financial instruments will help transfer these capabilities to the local and community levels. Equally important is reinforcing the limited capacities of **investors, donors and the private sector** for facilitating access to funding support by communities and grass roots groups engaged in restoration, and understanding the requirements for different types of funding.

Besides the mobilization of financing instruments, the financial capacities of investors, donors and the private sector need to be strengthened in areas such as structuring financing to be sustainable, developing innovative financing solutions, managing investment risks, and promoting partnerships and actions to boost financing and economic incentives for ecosystem restoration.
In addition, capacity development initiatives should be geared to investors, donors and the private sector as well as research and academia, in order to develop science-based economic and environmental restoration scenarios, bankable business plans and business models based on sustainable production and environmental services from restored ecosystems, thereby supporting governments, NGOs and others at international, national, subnational and local levels with the implementation of restoration.

These capabilities are particularly important for promoting self-sustainable restoration initiatives and enhancing livelihood opportunities for local communities. Furthermore, actions are needed to overcome the limited capabilities of governments, NGOs and other organizations at all levels with regard to engaging with the finance and private sectors in restoration activities.

b) **Inclusive stakeholder engagement**: Besides working with the finance and private sectors, efforts should be focused on addressing the limited capabilities of governments, NGOs and others at international, national, subnational and local levels for engaging with sectors and actors, such as mining and energy, marine and fisheries, international development partners, land users and underrepresented groups (e.g. women, Indigenous peoples and youth) in restoration activities.

As expected, governments, NGOs and CBOs at the subnational or local level are more able to engage with community leaders and local organizations. This asset should be leveraged and reinforced to enable the engagement of other local land and ecosystem users, communities and interest groups, and to support local and community restoration initiatives.

This engagement strategy will range from transferring technologies, documenting and sharing knowledge and good practices (including Indigenous and traditional knowledge), facilitating and engaging in multi-stakeholder platforms and networks, formulating alternatives for generating livelihoods for local communities, and establishing or strengthening local producer organizations and value chains, among other things.

c) **Technical capacities**: Actions are needed to enhance technical capacities across stakeholder groups and through all phases of ecosystem restoration projects and initiatives. For governments, NGOs and others at international, national and subnational levels, priority should be given to the monitoring phase, as no major strengths were identified for this phase; assessment of the extent and scale of ecosystem degradation; developing financing plans and aligning targets at national and subnational levels (planning phase); and the development of supply chains and procurement of quality resources (implementation phase). Likewise, there is a need to improve the limited capacities of research and academia in respect of supporting governments, NGOs and others at international, national and subnational levels with models for assessing costs and benefits of ecosystem degradation and restoration; decision support tools and platforms; and inclusive and harmonized extension services.

d) **Policy**: Considering the importance of relevant policies that foster effective and inclusive ecosystem restoration, capacity development efforts need to address the limited capabilities of governments, NGOs and others at national and international levels for developing national-scale policies and legal frameworks that provide equitable access to markets for local communities; strengthening traditional and formal rules and regulations governing land ownership, resource tenure and use rights; providing effective incentives for local communities and stakeholders engaged in restoration activities, among others referred to in Table 1. Enhancing these capacities will enable the implementation of such policies by governments, NGOs and CBOs at the subnational and local levels. Capacity enhancement is needed to address the low capacity of governments and NGOs to engage with high-level policymakers on restoration planning and implementation. Hence, actions and dialogue roundtables to enable this engagement should be fostered.

Regarding organizational capacity, which is "… the collective capability of members to achieve their organization's goals" (FAO, 2010, p. 28),[4] although restoration is well represented in the organizational mandates (76 percent), specialized structures (63 percent) and coordination meetings (69 percent) of the respondents' organizations, half of the respondents (51 percent) have not received professional capacity development through their organizations. Therefore, actions to enhance organizational capacities should be geared towards providing enough capacity development opportunities and incentives for organization members. Such actions should thus focus on enhancing individual member and team capacities according to the organizational mandates and the gaps identified above. Other key actions suggested by the respondents include, in order of priority, fostering coordination and collaboration mechanisms; adopting organizational mandates and goals that support and prioritize ecosystem restoration for those organizations for which restoration is currently not a priority; and developing platforms for knowledge sharing.

2) FOSTERING NETWORKS, PARTNERSHIPS AND COLLECTIVE ACTION MECHANISMS

Respondents reported that actions needed to focus on: first, enhancing the capacities of individuals and organizations to establish, sustain and strengthen networks and partnerships; and second, developing and engaging with inclusive multi-stakeholder platforms and mechanisms for pursuing coordination and collective action, and enabling finance mobilization and the sharing of knowledge, experiences and information.

3) STRENGTHENING THE ENABLING ENVIRONMENT

In order for the environment to enable restoration activities, priority actions recommended by the respondents, in order of importance, should address: supporting the effective implementation of existing policies across national and subnational levels; fostering intersectoral policy coordination; promoting meaningful stakeholder engagement and intersectoral discussions in policymaking; promoting evidence-based policymaking through the integration of good practices and knowledge; creating supportive policies for ecosystem restoration; capacity development opportunities on restoration for policymakers; and establishing systems for monitoring the effectiveness of policies.

[4] FAO. 2010. *Enhancing FAO's practices for supporting capacity development of member countries*. Learning Module 1. Rome. 55 pp. (also available at: http://www.fao.org/3/a-i1998e.pdf).

What comes next?

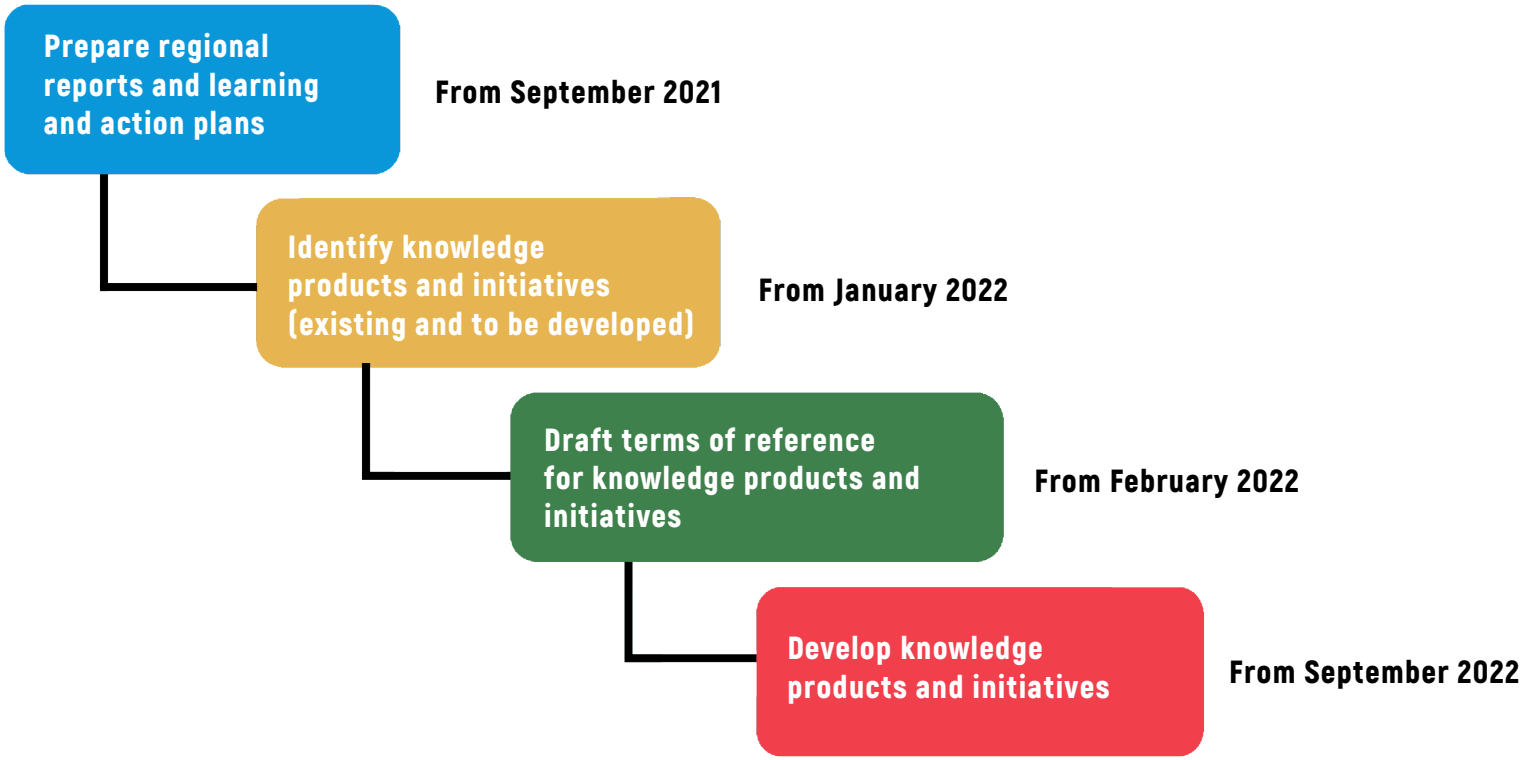
Prepare regional reports and learning and action plans
From September 2021
Identify knowledge products and initiatives (existing and to be developed)
From January 2022
Draft terms of reference for knowledge products and initiatives
From February 2022
Develop knowledge products and initiatives
From September 2022

Figure 7. Next steps, including the development and implementation of the capacity, knowledge and learning action plan based on the key findings of the global capacity needs assessment (all activities to be undertaken in parallel in 2021–2022)

#GenerationRestoration

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